

SSGIC

Local Fire Managers, Fuels Specialists, and Resource Planners

December 11, 2002

Kern County Fire Department – Bakersfield, CA

SSGIC Meeting Participants, 12/11/2002

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Overview

The Southern Sierra Geographic Information Cooperative (SSGIC) is an interagency cooperative that has been active for the past three years in developing a landscape scale framework to support interagency fuels management across the Southern Sierra Nevada. The program has been funded through a Joint Fire Sciences Program (JFSP) grant with the following agencies as stakeholders: Bakersfield BLM, Kern County Fire Department, Sequoia National Forest, Tulare Unit of CDF, and Sequoia & Kings Canyon's National Parks. We have completed data development and analysis with the identification of strategic zones to collaboratively identify high priority fuels treatment areas. With the JFSP grant funding ending this month, we are focusing on reporting the SSGIC process and accomplishments, gathering feedback, and looking toward the future.

Goals

The goals of this meeting are:

- To present a workshop on the accomplishments of the SSGIC to date.
- To solicit feedback from meeting participants. In particular, to hear the perspective of local fire, fuels, and resource planners for inclusion in a presentation to local agency chiefs and other outside interests on Jan. 27, 2003.

SSGIC Workshop Presentations

Several presentations were made that described the SSGIC project, focusing on the need for and national direction to pursue collaborative fuels management as well as its technical implementation. We have completed both data development and analysis across 4.7 million acres of the Southern Sierra Nevada. All data and analyses are available on our website as interactive maps and data for download at <http://ssgic.cr.usgs.gov>. The presentations included:

- Program Management
 - *Management Overview/Perspectives on Collaboration (Bill Kaage)* - Land managers have become more aware in recent years that their resources and resource values don't end at the border of their unit. This is especially true for fire managers since fire sweeps across invisible jurisdictional boundaries. This knowledge, combined with the National Fire Plan's emphasis on interagency fire and fuels planning, requires land managers to adopt new ways of thinking and working collaboratively. Inevitably issues of individual agency cultures, missions, turf, and uneven technical and scientific capabilities between agencies present challenges to implementing true interagency planning. Barriers to interagency fire and fuels planning as well as some strategies applied for overcoming these were presented.
 - *Project Overview (Pat Lineback)* - The SSGIC program has focused on using Information Technologies (IT) and Geographic Information Systems (GIS) to support landscape based fire and fuels planning and develop standardized business processes including fire analyses across agencies. While IT is not in itself a goal, it can play a valuable supportive role in redefining and improving interagency collaboration. The presentation provided an overview of the SSGIC including its purpose, business plan, and lessons learned.
- Technical Implementation
 - *Fuels Data Management (Brent Skaggs)* - Fuels managers and the fire management community are increasingly dependent on analytical processes to integrate the large amounts of complex data available to them to conduct analyses and identify priority treatment areas. Inadequate fuels data is generally recognized as a limiting factor in any fuels/fire related analysis. It is also essential to meaningful analyses. Consequently, large investments are being made in improving fuels and other fire related data. The SSGIC utilized a variety of existing source data to develop seamless fuels data across the project area. Options for improving and managing long-term collaboration with fuels-related data will also be discussed.

- *Analysis framework (Anne Birkholz)* – A summary of the analyses and tools developed by the SSGIC to identify and prioritize treatment areas across watersheds was presented. The process began with the collaborative development of basic Hazard, Risk, and Value assessments. “Hazard” and “Risk” were subsequently integrated into a single Wildland Fire Susceptibility Index. An ArcView multi-criteria, decision-making extension was developed to evaluate and rank “Values”, considering value both as “assets at risk” and as ecological benefits. This ArcView tool can also be used to evaluate alternative fire management scenarios. Final integration identified strategic zones in which potential treatment areas will be identified.
- *Serving Dynamic Maps and Data using the Internet (Pat Lineback)* - The SSGIC website at ssgic.cr.usgs.gov provides public and agency access to both data and project documentation. Most data and analytical products are available for both interactive viewing via ArcIMS mapping software and download with FGDC compliant metadata. A user only needs their Internet browser to view and make their own maps using pre-developed map services. This website also allows 24/7 access in support of emergency management. The website itself is the product of another collaborative agreement between SSGIC and the USGS Denver Mapping Center who have provided technical support and server maintenance. A “cookbook” is being developed that allows local agencies to develop and post their own map services using the existing SSGIC architecture. Individual agencies can leverage this web-based mapping site to post their own map services that are important to their individual agency goals. Unfortunately, a live demonstration of the Website was not possible due to configuration problems with the USGS firewall which were not resolved in time.

PowerPoint slides accompanying these presentations can be viewed or downloaded from the SSGIC web site from the Document Library under Meeting and Workshop Summaries for the Dec. 4, 2002 Association of Fire Ecologists (AFE) conference.

Feedback from Meeting Participants

The afternoon was devoted to soliciting feedback from meeting participants. Funding for the SSGIC will end December 31, 2002. The information gathered today will contribute to the meeting scheduled for Jan. 27, 2003 to present SSGIC accomplishments to local agency chiefs and other outside interests. A summary of comments received follows.

Utility of the current Website and data

- The recently completed Kern River Valley FireSafe Council management plan made significant use of the data on the SSGIC Website. They found the data very valuable and its availability resulted in a significant cost reduction for them.
- Readily available seamless data and analysis will find immediate uses including:
 - Streamlining the planning process to develop alternatives and prioritize projects.
 - Preventing duplication of effort. For example, three agencies recently prepared planning documents for the Black Gulch area.
 - Complementing existing local analysis tools; providing independent support for decisions made and priorities established based on local analyses.
 - Assisting in the allocation of scarce resources; potential use as a budget tool and a fuels management decision making tool.
 - Providing an objective basis to justify proposed management activities.

- The ability for anyone with Web access to make a map online and print it locally is very valuable.
- Datasets developed by the SSGIC have utility to other natural resource areas where the availability of data across boundaries is also essential.

Data improvements needed

- Continue improvement of datasets is essential, especially to meet the level of accuracy required for project level planning and analysis.
- Establish mechanisms to update dynamic datasets routinely; to move towards an update and maintenance mode.
- Include monitoring data on the Website.
- Continue investment in developing datasets that are consistent across agency boundaries. This will require standardized business processes and national data standards. An additional benefit of standardization noted is that all fire personnel would be proficient in its use and skilled in its interpretation. This would facilitate cross agency details and cooperation.
- Establish a regional fuels planning organization, possibly funded by another JFSP grant.
- Use existing data, especially if burn plans were available, to develop a hard and soft fuel break dataset.

Analysis recommendations

- Demonstrate post treatment change both spatially and temporally to track accomplishments.
- Develop a DRID or Disturbance based FRID (Fire Return Interval Departure) model to capture the effects of disturbance and management activities.
- Perform project level analysis incorporating proposed fuels treatment activities. This would allow a comparison of the effects of alternative treatments.
- Develop standardized, repeatable analyses that are updated on a routine basis incorporating current data.
- Remain flexible enough to implement the new generation of analysis tools as they are developed.

Expanded functionality recommended

- Currently, each agency's access to the Website is limited to a single individual uploading datasets and creating map services for viewing. Technologies are available to expand access, however, there are complex security issues involved in their implementation that would need to be resolved. Suggestions for expanded Web functionality included:
 - Ability to post burn plans to the Website.
 - Ability to update corporate data.
 - Ability to perform Web based processing and analysis. An example is the ArcView decision making extension.
 - Ability to input data directly to datasets on the Web such as drawing treatment units online.
- Distribute SSGIC datasets and analyses on CD for use during operations.

Recommendations for the January 27, 2003 Meeting

Several specific recommendations were made to address at the Jan. 27, 2003 meeting. These were:

- Ensure that management are aware that under current budget processes there is no “reward” for supporting interagency collaboration or activities. National direction mandates it, but there are no interagency targets.
- Focus on:
 - The value of SSGIC data and analysis to emergency operations, having it available 24/7.
 - The potential value to other resource management applications such as Cumulative Watershed Effects modeling and other information needs across agency boundaries such as wildlife migration patterns.
- Recommend the possibility of using the SSGIC analysis area as a project area for the LandFire fuels data development project.

Upcoming Meetings

The following meetings are scheduled for the SSGIC in the next several months:

- January 7, 2003 – Meeting of Principal Investigators to evaluate feedback from today’s (Dec. 11, 2002) meeting and to identify strategies and develop recommendations to present to management at the Jan. 27, 2003 meeting.
- January 27, 2003 – Presentation of the SSGIC program to local agency chiefs and other outside interests; an afternoon workshop will focus on gathering feedback on the future role and function of interagency collaboration in the Sierra Nevada.